## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors:

David J. Ecker, et al.

Serial No.:

Not yet assigned

Group Art Unit: 1637

Filed:

Concurrently herewith

Examiner: Suryaprabha Chunduru

Title:

METHODS FOR RAPID DETECTION AND IDENTIFICATION OF

**BACTERIAL BIOAGENTS** 

EXPRESS MAIL INFORMATION EXPRESS MAIL LABEL NO: EL963417472

DATE OF DEPOSIT: March 25, 2004

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## **INFORMATION DISCLOSURE STATEMENT**

## SIR:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the attached PTO-1449 forms submitted herewith.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

Copies of the references cited on the attached PTO/SB/08A and PTO-892 forms can be found in the parent case, U.S. Serial No. 10/326,642, filed December 18, 2002.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

No first Official Action has yet been received and it is presumed that none has yet been mailed. No fee or certification is required. 37 C.F.R. § 1.97(b).

Respectfully submitted,

Paul K. Legaard Regis. No. 38,534

Enclosures:

PTO/SB/08A - 8 Sheets PTO-892 (1 Sheet)

Dated: March 25, 2004

Cozen O'Connor 1900 Market Street Philadelphia, PA 19103

Tel: 215.665.6904 Fax: 215.665.2013

Approve: be through 10/31/2002. OMB 0651-0031

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IBIS0001-106

Substitute for form 1449A/PTO Complete if Known 10/326,642 Application Number INFORMATION DISCLOSURE December 18, 2002 Filing Date STATEMENT BY APPLICANT David J. Ecker First Named Inventor **Group Art Unit** Not Yet Assigned (use as many sheets as necessary) Not Yet Assigned Examiner Name

**Attorney Docket Number** 

of 3

Sheet

			U.S. PATENT		
	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevan
Examiner thitials *	No.1	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY		Passages or Relevant Figures Appear
	AA	US-5,484,908	01/16/1996	Froehler et al	
	AB	US- 5,502,177	03/26/1996	Matteucci et al	
	AC	US- 5,547,835	08/20/1996	Koster	
	AD	US- 5,605,798	02/25/1997	Koster	
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	AH	US- 5,763,588	07/09/1998	Matteucci et al	
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	FOREIGN PA	TENT DOCU	MENTS		
	Foreign Patent Document		Name of Patentee or	Pages, Columns, Lines, Where Relevant	
Cite No.1	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (# known)	Publication Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T⁵
 BA	WO97/33000	09/12/97			
 BB	WO97/37041	10/09/97			
BC	WO98/12355	03/26/98			
 BD	WO98/54751	12/03/98			
 BE	WO99/14375	03/25/99			
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Substitute	Substitute for form 1449A/PTO				Complete if Known
INFORMATION DISCLOSURE				Application Number	10/326,642
				Filing Date	December 18, 2002
STAT	STATEMENT BY APPLICANT			First Named Inventor	David J. Ecker
				Group Art Unit	Not Yet Assigned
	(use as man	y sheets as	necessary)	Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	IBIS0001-106

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	CA	Aaserud, D.J., et al., "Accurate base composition of double-strand DNA by mass spectrometry," J. Am. Soc. Mass Spec., 1996, 7, 1266-1269	
	СВ	Bowen, J.E., et al., "The native virulence plasmid combination affects the segregational stability of a theta- replicating shuttle vector in bacillus anthracis var, New Hampshire," J. Appl. Microbiol., 1999, 87, 270-278	
	СС	Hurst, G.B., et al., "Detection of bacterial DNA polymerase chain reaction products by matrix-assisted laser desorption/ionization mass spectrometry," Rapid Commun. Mass Spec., 1996, 10, 377-382	
	CD	Loakes, D., et al., "Nitroindoles as universal bases," Nucleosides and Nucleotides, 1995, 14(3-5), 1001-1003	
	CE	Muddiman, D.C., et al., "Precise mass measurement of a double-stranded 500 base-pair (309 kDa) polymerase chain reaction product by negative ion electrospray ionization fourier transform ion cyclotron resonance mass spectrometry," Rapid Commun. Mass Spec., 1999, 13, 1201-1204	
	CF	Muddiman, D.C., et al., "Length and base composition of PCR-amplified nucleic acids using mass measurements from electrospray ionization mass spectrometry," Anal. Chem., 1997, 69, 1543-1549	
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	СН	Van Aerschot, A., et al., "In search of acyclic analogues as universal nucleosides in degenerate probes," Nucleosides and Nucleotides, 1995, 14(3-5), 1053-1056	
	CI	Wunschel, D.S., et al., "Heterogeneity in bacillus cereus PCR products detected by ESI-FTICR mass spectrometry," Anal. Chem., 1998, 70, 1203-1207	
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· · · · · · · · · · · · · · · · · · ·	СК	Wetham, et al., Rapid Communications in Mass Spectroscopy (1988) 12:176-180	

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Substitute for form 1449A/PTO Complete if Known 10/326,642 **Application Number** INFORMATION DISCLOSURE December 18, 2002 Filing Date STATEMENT BY APPLICANT David J. Ecker First Named Inventor **Group Art Unit** Not Yet Assigned (use as many sheets as necessary) **Examiner Name** Not Yet Assigned Attorney Docket Number of 3 IBIS0001-106 Sheet

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS					
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	α	Cho et al., "Application of the ribonuclease P (RNaseP) RNA gene sequence for phylogenetic analysis of the genus Saccharomonospora," Int'l. J. Systematic Biol. (1998) 48:1223-1230			
	СМ	Matray, et al., "Synthesis and properties of RNA analogs - oligoribonucleotide N3'->P5' phosphoramidates," Nucleic Acids Res. (1999) 3976-3985			
	CN	Li, et al., "Single nucleotide polymorphism determination using primer extension and time of flight mass spectrometry," Electrophoresis (1999) 20:1258-1265			
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Examiner	Date	
Signature	Considered	

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Substitute for form 1449A/PTO Complete if Known **Application Number** 10/326,642 INFORMATION DISCLOSURE December 18, 2002 Filing Date STATEMENT BY APPLICANT David J. Ecker **First Named Inventor Group Art Unit** 1637 (use as many sheets as necessary) **Examiner Name** S. Chunduru of 5 IBIS0001-106 (TIGR0005US) Attorney Docket Number Sheet

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
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	S1	BAKER, et al., "Review and re-analysis of domain-specific 16S primers," J. Microbiol. Methods (2003) 55:541-555.	
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	S3	BLACK. et al., "Detection of trace levels of tricothecene mycotoxins in human urineby gas chromatography-mass spectrometry," J. Chromatog. (1986) 367:103-115.	
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Complete if Known Substitute for form 1449A/PTO **Application Number** 10/326,642 INFORMATION DISCLOSURE December 18, 2002 Filing Date STATEMENT BY APPLICANT First Named Inventor David J. Ecker **Group Art Unit** 1637 (use as many sheets as necessary) S. Chunduru **Examiner Name** IBIS0001-106 (TIGR0005US) of 5 Attorney Docket Number Sheet

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), to the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-number(s), publisher, city and/or country where published.		T ²
	S12	FOX et al., "Report of the "Bioterrorism Workshop", J. Microbol. Methods (2002) 51:247-254.	
<del></del>	S13	GRIFFEY and GREIG, "Detection of base pair mismatches in duplex DNA and RNA oligonucleotides using electrospray mass spectrometry," SPIE (1997) 2985:82-86.	
	S14	GRIFFIN, et al., "Direct genetic analysis by matrix-assisted laseer desorption/ionization mass spectrometry," proc. Natl. Acad. Sci. USA (1999) 96:6301-6306.	
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	S23	LITTLE, et al., "Rapid sequencling of oligonucleotides by high-resolution mass spectrometry," J. Am. Chem. Soc. (1994) 116:4893-4897.	
	S24	LIU, et al., "Improving the microdialysis procedure for electrospray ionization mass spectrometry of biological samples," J. Mass Spectrom. (1997) 32:425-431.	
	S25	MANGRUM, et al., "Solution composition and thermal denaturation for the production of single-stranded PCR amplicons: piperidine-induced destabilization of the DNA duplex," J. Am. Soc. Mass Spectrom. (2002) 13:232-240.	
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Examiner Date Signature Considered	
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			CLOSURE	Filing Date	December 18, 2002	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	David J. Ecker	
				Group Art Unit	1637	
(use as many sheets as necessary)				Examiner Name	S. Chunduru	
Sheet	14	of	5	Attorney Docket Number	IBIS0001-106 (TIGR0005US)	

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	S34	NULL and MUDDIMAN, "Determination of a correction to improve mass measurement accuracy of isotopically unresolved polymerase chain reaction amplicons by electrospray lonization Fourier transform ion cyclotron resonance mass spectrometry," Rapid Comm. Mass Spectrom. (2003) 17:1714-1722.	
	S35	NULL and MUDDIMAN, "Perspectives on the use of electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry for short tandem repeat genotyping in the post genome era," J. Mass Spectrom. (2001) 36:589-606.	
	S36	NULL, et al., "Genotyping of simple and compound short tandem repeat loci using electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," Anal. Chem. (2001) 73:4514-4521.	
	S37	NULL, et al., "Implications of hydrophobicity and free energy of solvation for characterization of nucleic acids by electrospray ionization mass spectrometry," Anal. Chem. (2003) 75:1331-1339.	
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## Application/Control No. Applicant(s)/Patent Under Reexamination 10/326,642 ECKER ET AL. Notice of References Cited Art Unit Examiner Page 1 of 1 1637 Suryaprabha Chunduru **U.S. PATENT DOCUMENTS** Date **Document Number** Name Classification Country Code-Number-Kind Code MM-YYYY 514/394 Α US-5 - 2001 239,159 В US-3-2000 043:031 US-С - 2CC D US-Ε US-US-F US-G USн US-US-J US-Κ L US-US-M FOREIGN PATENT DOCUMENTS Date **Document Number** Classification Name Country Country Code-Number-Kind Code MM-YYYY N 0 Р Q R S T **NON-PATENT DOCUMENTS** Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) W

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